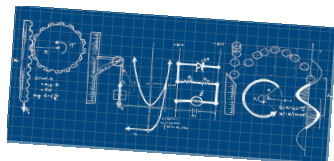


# Welcome to PHYSICS!!!

SECA Physics  
Friday 13 June 2014



H. Leslie Grebe  
Room C-244



## Opening Question:

What does this picture have to do with the phases of the moon?

Sep 7-7:04 AM

## Our 3 Questions

- \* Most periods except test/project times
- \* 3 Questions on the topics of the class
- \* Main source of classwork points
- \* I am happy to give full credit when I have no concerns about someone giving or getting help with the answers.

- Expectations

- Points

- GTKY?

You can't get your points if you don't have your **NAME!!!**

Name	Period
1.	
2.	
3.	

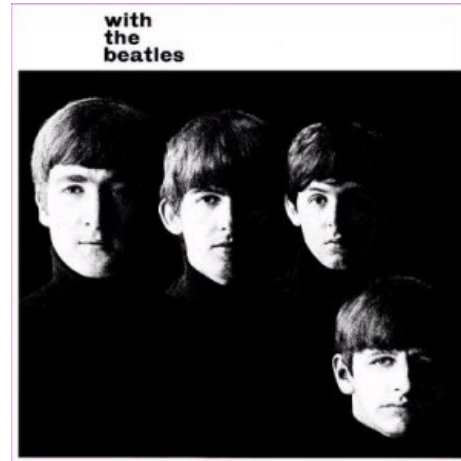
Sep 9-7:32 AM

So what does make the phases???

Let's do a demo. You be the earth. I'll hold the moon. The sun is a really bright building a couple miles that way.

How much of  
the side facing  
the sun can  
we see?

Worksheet on phases!



Apr 23-7:31 AM

### True or False:

In the summer it is warmer because we are closer to the sun.

Time to try it out

Quick review:

North Pole

South Pole

Northern Hemisphere

North America

South America

On your back...

Right hand = **W**

Time if sun is right in front of you

DO PG 1  
3  
4

Do it, write it, Daily 3, relax...

Nov 16-7:37 AM

Straight, facing sun: How long to rotate around once? 24 hrs

Birthday - how many trips? - 18

How long to go all the way around the sun? Called: ORBIT  
(Try it -- rotate that much?) 1 YEAR = 365 days

Really supposed to be straight? NO

What should it be? How much?  
↳ NORTH STAR 23.5°

How many stars in our solar system? 1

What called? SUN

How far away is Polaris? 1,000,000 X AS FAR AS NICTHANE

Try it - is everyone leaning the same way? YES - OVER HOOP

Compared to sun? Upper body toward? away?  
NO

What time of year is it? (Where are their heads pointed?)  
Dates, cards, globe leaning SUMMER WINTER

Mr. Winter: What time of day? NOON

Season in NA? AWAY → WINTER

Date in NA? 12/21

Season in SA? TOWARDS → SUMMER

Date in SA? 12/21

Time in China? MIDNIGHT

Date in China? 12/21 or 12/22

Seasons in China? WINTER

Bonus: Season in Australia? SUMMER

Summer vs. Winter - closer to sun? LEANING SCALE

Scale? BALL TIP OF PEN ~15 IDS AWAY  
NOT AT SCALE - NOT CLOSER/FARTHER!

What shape is earth's orbit?  
↳ ALMOST PERFECT CIRCLE

When closest to sun???

What is it about the tilt that makes summer warmer?

Lean forward...

More or less time in the sky? = # day light hours MORE

More or less time to heat the earth? MORE

Temp warmer or colder?

Jun 13-11:36 AM

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Sep 9-7:32 AM

1) The time it takes the earth to go around the sun is called

- A) Rotation
- ☒ B) Orbit
- C) both
- D) neither

2) The earth is always tilted toward Polaris at an angle of

- A) 0
- ☒ B) 23.5
- C) 45
- D) 90

3) **True or False:**

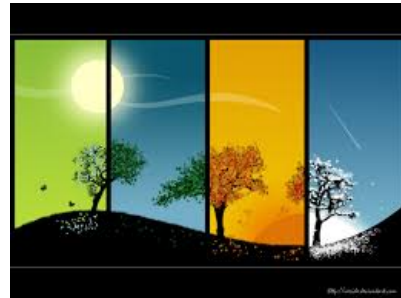
In the summer we are closer to the sun.

. CIRCLE → IN DEC.

Apr 16-7:13 AM

# Welcome back...

H. Leslie Grebe



Opening Question:

What parts of the world have the same season (at the same time)?

N OR S HEMISPHERE

What parts of the world have the same time of day (at the same time)?

SAME MERIDIAN

Sep 7-7:04 AM

### Computer lab

Reinforce what we tried on Friday

Daily 3 will come from the packet

Nov 16-7:37 AM

### Our 3 Questions

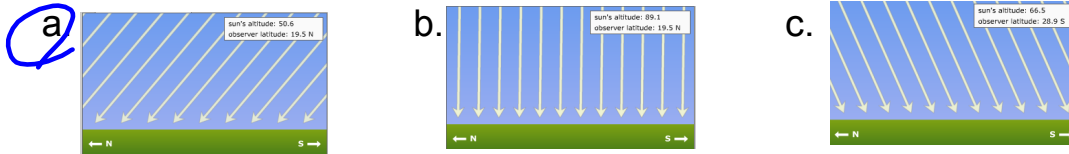
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Sep 9-7:32 AM

1) For a person North of the equator in January, the sun slants most like which of these:



2) **True or False:**

The north pole always points toward the same area of your screen as the earth goes around the sun.

3) What happens to the observer at the South Pole from April - September? **DARKNESS / NO SUN**

Apr 16-7:13 AM

Welcome back...

H. Leslie Grebe



Opening Question:

Are all our light sources the same?

Sep 7-7:04 AM

ELECTRICITY  
THRU. GAS

# Spectroscopes

Overhead lights

PURPLE, GREEN, RED, ORANGE  
BLACK LINE LESS YELLOW

most rocks  
HEAT

Sun light

CONTINUOUS — WHOLE RAINBOW

Incandescent bulb

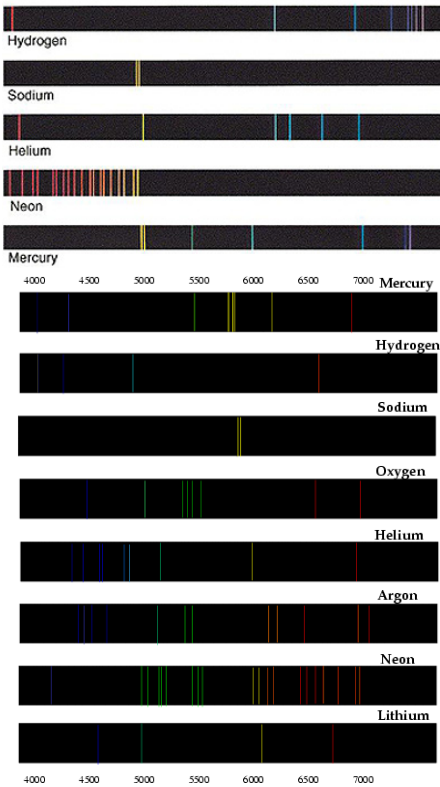
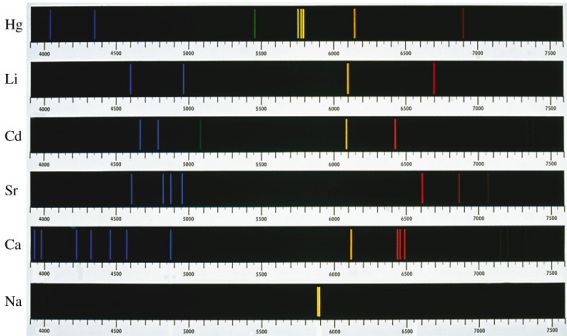
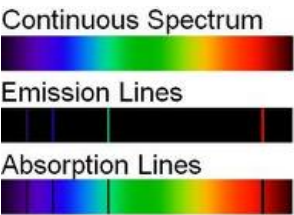
LIKE SUNLIGHT BUT  
STRONGER IN RED

Laser pointer

ONLY ONE SPOT OF RED

Compact fluorescent

May 22-7:32 AM



May 20-6:52 AM

## Invisible Worlds -- the piano?

### Outrageous Acts of Science

A show about viral videos and the science that makes them possible...



#### "Red Hot Rim" Dukes of Havoc #18

1. Just watch
2. Read the questions
3. Watch again
4. Discuss
5. Watch a last time to catch anything you might have missed

#### "Shotgun Rainbow" Homemade Heroes #19

Oct 4-7:27 AM

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Sep 9-7:32 AM



1) What is one light source whose spectrum had bright and dark spots?

CEILING  
OVERHEAD

2) How was the laser pointer different from the rest?

ONLY RED

3) What do we call the tube that breaks the light into its different colors?

SPECTROSCOPE

Jun 13-11:38 AM